## (19) World Intellectual Property Organization International Bureau



## 1 **4 6**00 Cuit**er**u in **16**00 Cuite Cuit Cuit Cuit ( in dh Cuit Cuit Cuit ( inde cuit 1600 Cuite Cuit ( inde cuit

(43) International Publication Date 27 January 2005 (27.01.2005)

PCT

## (10) International Publication Number WO 2005/008194 A2

(51) International Patent Classification7:

**G01H** 

(21) International Application Number:

PCT/US2004/022499

(22) International Filing Date:

13 July 2004 (13.07.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/487,449

14 July 2003 (14.07.2003) US

- (71) Applicant (for all designated States except US): THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS represented by THE SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES, CENTERS FOR DISEASE CONTROL AND PREVENTION [US/US]; Technology Transfer Office, 4770 Buford Hwy (K79), Atlanta, GA 30341 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): KARDOUS, Chucri, A. [US/US]; 7096 Highpoint Drive, Florence, KY 41042 (US).
- (74) Agent: HAENDLER, Jeffrey, B.; Klarquist, Sparkman, LLP, One World Trade Center, Suite 1600, 121 SW Salmon Street, Portland, OR 97204 (US).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GII, GM, HR, HU, ID, H., IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SYSTEM FOR MONITORING EXPOSURE TO IMPULSE NOISE

(57) Abstract: In one embodiment, a system for monitoring exposure to impulse noise includes a sound-sensing device, such as a microphone or other type of pressure transducer, operable to sense impulse noise, and a storage module operable to store the waveform of the impulse noise sensed by the sound-sensing device. The sound-sensing device desirably is operable to sense impulses that are greater than 146 dB, such as impulses created by construction machinery and firearms. The system also can include a processor operable to calculate one or more noise parameters of the impulse noise form the waveform, and a user interface program operable to display said one or more noise parameters selected by a user.